CLAIMS

1. A liquid feed fuel cell system comprising:

(A) a direct oxidation fuel cell including a membrane electrode assembly;

(B) a source of liquid fuel; and

(C) a fuel container coupled with said fuel cell, including:

(i) a first inner bladder being substantially fully expanded upon being filled with liquid fuel, and having a fuel outlet conduit to supply liquid fuel to said direct oxidation fuel cell; and

(ii) a second inner bladder for receiving effluent from said fuel cell through an effluent inlet leading from said fuel cell into said fuel container.

2. The liquid feed fuel cell system as defined in claim 1 wherein said second inner bladder is coupled to an anode aspect of said fuel cell.

3. The liquid feed fuel cell system as defined in claim 1 wherein said second inner bladder is coupled to a cathode aspect of said fuel cell.

4. The liquid feed fuel cell system as defined in claim 1, further comprising at least one force applying instrument which acts upon said first inner bladder such that fuel contained in said first inner bladder is expressed through said fuel outlet conduit toward said fuel cell.

5. The liquid feed fuel cell system as defined in claim 1, further comprising at least one of a pump and a valve means associated with said fuel outlet conduit to control the delivery of fuel to said fuel cell.

6. The liquid feed fuel cell system as defined in claim 1, further comprising at least one of a pump and a valve means associated with said effluent inlet conduit to control the removal of effluent from said fuel cell.

7. An effluent container for use with a fuel cell system, comprising:

(A) a fuel cell in which reactions occur to produce electricity, and such reactions producing effluent;

(B) an outer container; and

(C) an inner bladder for receiving effluent from said fuel cell through an effluent inlet leading from said fuel cell into said container.

8. The effluent container as defined in claim 7 wherein said outer container is a removable cartridge.

9. A method of removing effluent from a fuel cell including the steps of:

(A) providing an effluent container that includes an inner flexible bladder; and

(B) coupling said inner flexible bladder with the fuel cell such that it receives effluent from said fuel cell.

10. The method of removing effluent from a fuel cell as defined in claim 9 including the further step of pumping the effluent out of said fuel cell to said inner bladder.

11. A method of delivering fuel to and removing effluent from a fuel cell in a fuel cell system , including the steps of:

(A) providing a direct oxidation fuel cell including a membrane electrode assembly;

(B) coupling a container with said fuel cell, including:

(i) providing within said container, a first inner bladder being substantially fully expanded upon being filled with liquid fuel, and having a fuel outlet conduit to supply liquid fuel to said direct oxidation fuel cell; and

(ii) providing within said container, a second inner bladder for receiving effluent from said fuel cell through an effluent inlet leading from said fuel cell into said container as reactions occur in said fuel cell, in such a manner that as effluent enters said second inner bladder, said second inner bladder expands and contacts said first inner bladder and displaces fuel out of said first inner bladder to said fuel cell.

12. The method of delivering fuel to and removing effluent from a fuel cell in a fuel cell system as defined in claim 11, including the further step of disposing said first and second bladders in a rigid outer shell.

13. The method of delivering fuel to and removing effluent from a fuel cell in a fuel cell system as defined in claim 11, including the further step of providing said second inner bladder as a removable element, and detaching and removing said second inner bladder to disposed of said effluent.

14. The method of delivering fuel to and removing effluent from a fuel cell in a fuel cell system as defined in claim 11, including the further step of receiving other substances into said second inner bladder in addition to or instead of effluent from said fuel cell.